LTC 2810/90
Color Video Monitor

Instructions for Use

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Philips
Communication &
Security Systems

PHILIPS

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IMPORTANT SAFEGUARDS

1. Read Instructions - All the safety and operating instructions should be read before the unit is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the unit and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Cleaning - Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. Attachments - Do not use attachments not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture - Do not use this unit near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.
8. Accessories - Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only with a stand, tripod, bracket, or mount recommended by the manufacturer, or sold with the product. Any mounting of the unit should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

   An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
9. Ventilation - Openings in the enclosure, if any, are provided for ventilation and to ensure reliable operation of the unit and to protect it from overheating. These openings must not be blocked or covered. This unit should not be placed in a built-in installation unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
10. Power Sources - This unit should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply you plan to use, consult your appliance dealer or local power company. For units intended to operate from battery power, or other sources, refer to the operating instructions.
11. Grounding or Polarization - This unit may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.
    Alternately, this unit may be equipped with a 3-wire grounding-type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
12. Power-Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
13. Power Lines - An outdoor system should not be located in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits. When installing an outdoor system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal. U.S.A. models only - refer to the National Electrical Code Article 820 regarding installation of CATV systems.
14. Overloading - Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.
15. Object and Liquid Entry - Never push objects of any kind into this unit through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the unit.
16. Servicing - Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
17. Damage Requiring Service - Unplug the unit from the outlet and refer servicing to qualified service personnel under the following conditions:
    a. When the power-supply cord or plug is damaged.
    b. If liquid has been spilled, or objects have fallen into the unit.
    c. If the unit has been exposed to rain or water.
    d. If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to its normal operation.
    e. If the unit has been dropped or the cabinet has been damaged.
    f. When the unit exhibits a distinct change in performance--this indicates a need for service.
18. Replacement Parts - When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock or other hazards.
19. Safety Check - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.
20. Coax Grounding - If an outside cable system is connected to the unit, be sure the cable system is grounded. U.S.A. models only--Section 810 of the National Electrical Code, ANSI/NFPA No.70-1981, provides information with respect to proper grounding of the mount and supporting structure, grounding of the coax to a discharge unit, size of grounding conductors, location of discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
21. Lightning - For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the cable system. This will prevent damage to the unit due to lightning and power-line surges.

FCC & ICES INFORMATION

(U.S.A. and Canadian Models Only)

WARNING - This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules and ICES-003 of Industry Canada. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Intentional or unintentional changes or modifications not expressly approved by the party responsible for compliance shall not be made. Any such changes or modifications could void the user's authority to operate the equipment.

The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402, Stock No.004-000-00345-4.

SAFETY PRECAUTIONS

CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT OPEN COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This label may appear on the bottom of the unit due to space limitations.

The lightning flash with an arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE UNITS NOT SPECIFICALLY DESIGNED FOR OUTDOOR USE TO RAIN OR MOISTURE.

Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical Code or applicable local codes.

Power Disconnect. Units with or without ON-OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON-OFF switch is in the ON position. The power cord is the main power disconnect for all units.

COVER REMOVAL

WARNING:
REMOVAL OF THE COVER SHOULD ONLY BE PERFORMED BY QUALIFIED SERVICE PERSONNEL - NOT USER SERVICEABLE. THE UNIT SHOULD ALWAYS BE UNPLUGGED, BEFORE REMOVING THE COVER AND REMAIN UNPLUGGED WHILE THE COVER IS REMOVED.

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1 INTRODUCTION

1.1 Unpacking

Check for the following items:

- verify the model number
- power cord
- Installation Instructions

1.2 Monitor

The LTC 2810/90 is a multi-standard color monitor housed in a metal cabinet for rugged reliability. It has a 10-inch tube (viewable picture area 23 cm (9")). The monitor offers simple adjustments to meet particular requirements, with default parameters set at the factory.
With a built-in loudspeaker and inputs able to accept NSTC and PAL standards, the monitor offers a flexible solution for a wide variety of surveillance application.

1.3 Power

Model No.	Rated Voltage	Voltage range (VAC)	Power at Rated V.	Sync Format
LTC 2810/90	100/240 VAC, 50/60 Hz	90 to 260	50 W	NTSC/PAL

The monitor is delivered with a 2-pole Euro cord and a 3-pole US cord.

2 CONTROLS AND FEATURES

2.1 Front Panel

1 Power switch [POWER]
Press this switch to turn the power ON or OFF.

2 Video button [VIDEO]
Selects the composite video signal inputs to the VIDEO A (Green LED indication) and VIDEO B (Orange LED indication) terminal and the audio signal input to the AUDIO A and AUDIO B terminals (RCA connector) on the rear panel. When selected, the respective indicator lights.

3 Volume buttons [VOLUME]
These buttons have two functions:
Volume control: Press the + or - buttons as required to adjust the speaker volume.
Data controls: When the SHARP, TINT, COLOR, BRIGHTNESS and CONTRAST buttons are pressed, used to change the value of the selected function.

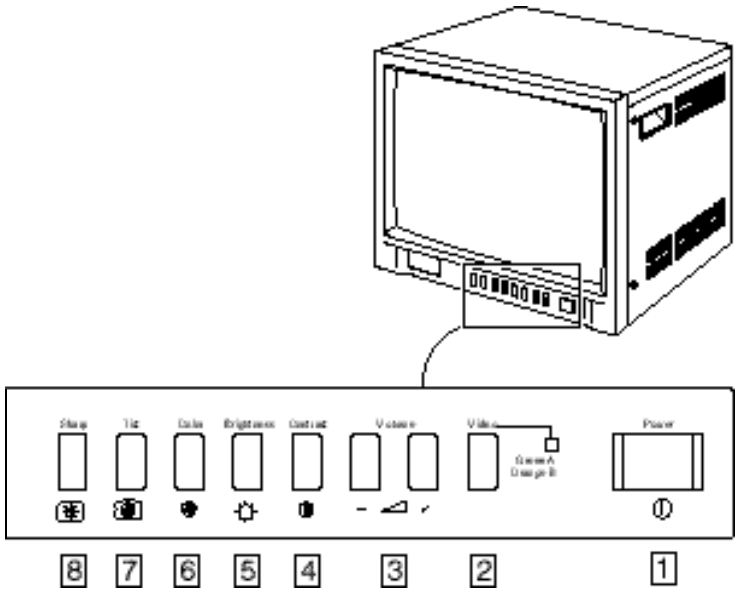
4 Contrast button [CONTRAST]
Press this button to adjust picture contrast. Adjust the value with the VOLUME buttons to control the image contrast (Default is 60).

5 Brightness button [BRIGHTNESS]
Press this button to adjust picture brightness. Adjust the value with the VOLUME buttons to control the image brightness (Default is 50).

6 Color button [COLOR]
Press this button to adjust the picture color intensity. Adjust the value with the VOLUME buttons to control the image color (Default is 50).

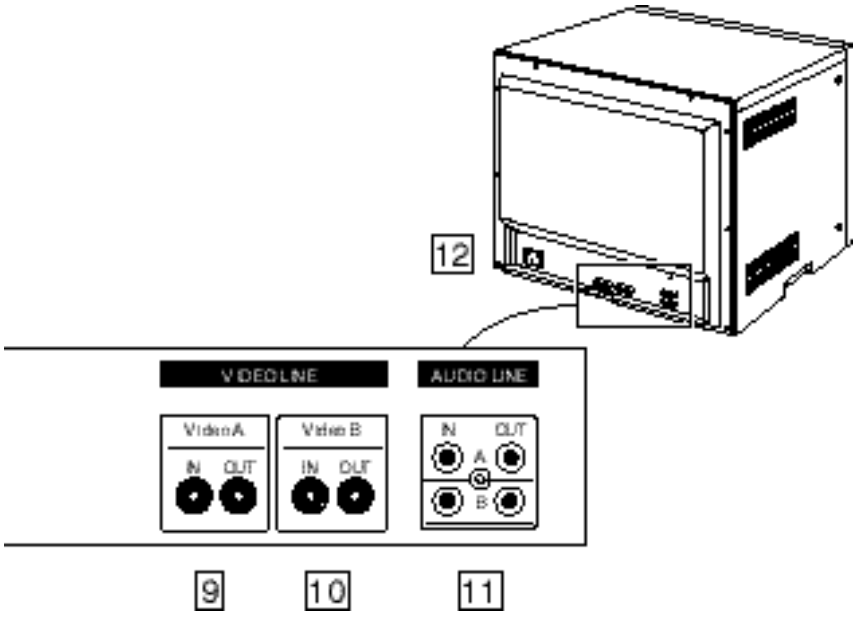
7 Tint button [TINT] (NTSC only)
Press this button to control the picture color to be close to nateral color. Adjust the value with the VOLUME buttons to control the color tint (Default is 50).

8 Sharp button [SHARP]
Press this button to adjust the picture image. Adjust the value using the VOLUME buttons to control the sharpness of the image (Default is 50).



Front panel

2.2 Rear Panel



Rear panel

9 Video A terminals [VIDEO A IN/OUT]
Video signal input (IN) and output (OUT) terminals
The output terminal is bridge-connected (auto termination).
IN : Video signal input terminal
OUT : Bridge-connected video signal output terminal

NOTE: For corresponding audio signals, use the AUDIO A terminals 11.

10 Video B terminals [VIDEO B IN/OUT]
Video signal input (IN) and output (OUT) terminals.
The output terminal is bridge-connected (auto termination).
IN : Video signal input terminal
OUT : Bridge-connected video signal output terminal

NOTE: For corresponding audio signals, use the AUDIO B terminals 11.

11 Audio A, B terminals [AUDIO A, B IN/OUT]
Audio signal input (IN) and output (OUT) terminals. The output terminal is bridge-connected.
IN : Audio signal input terminal
OUT : Bridge-connected audio signal output terminal

NOTE: For corresponding video signals, use the VIDEO terminals 9, 10.

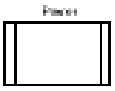
12 AC Inlet
Power input connector. Connects the supplied AC power cord to the appropriate AC outlet.

Note:
The impedance is automatically set to 75 Ω by the input of a signal on the input connector while operating in a single connection mode. However, if a cable is connected to the output connector, the connection is placed into the open status by the multiple connection and high impedance automatically selected. Do not leave an unused cable connected to the monitor. If a single cable is used, then it must be connected to the input connector for the 75 Ω auto termination selector to function properly.

3 OPERATION

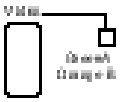
3.1 Basic operation

1. Press the Power switch to turn on the power.



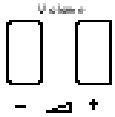
When the power is ON, the Video Selector indicator is lit.
When the power is OFF, the Video Selector indicator is unlit.

2. Press (toggle) the Video button (A or B) to choose the input.



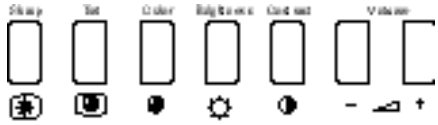
Button	Terminals on the rear panel	
	Video signal input	Audio signal input
A (Video)	VIDEO A terminal	AUDIO A terminal
B (Video)	VIDEO B terminal	AUDIO B terminal

3. Press the VOLUME button to adjust the speaker volume.



3.2 Picture Adjustment

To adjust the picture's Sharp, Tint, Color, Brightness or Contrast, press the appropriate button then adjust with the Volume button. Default for each setting is 50.



4 BASIC CONNECTION EXAMPLE

The illustration below shows the basic connection of composite video equipment.